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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/524,536	02/14/2005	Mats Hedman	1509-1044	1516
466	7590	11/19/2007		
YOUNG & THOMPSON 745 SOUTH 23RD STREET 2ND FLOOR ARLINGTON, VA 22202			EXAMINER WEINSTEIN, LEONARD J	
			ART UNIT 3746	PAPER NUMBER
			MAIL DATE 11/19/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/524,536

Applicant(s)

HEDMAN, MATS

Examiner

Leonard J. Weinstein

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 August 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This office action is in response to the amendment of August 20, 2007. In making the below rejections and/or objections the examiner has considered and addressed each of the applicant's arguments.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-14 are rejected under 35 U.S.C. 102(b) as being anticipated by Schechter 6,223,846. Schechter teaches all the limitations as substantially claimed for controlling the gas flow by a compressor including the steps involving: (claim 1) the step wherein a volume expanded during an intake stroke and an introduced volume of gas is compressed and taken out through a non return valve 20 for outflow and/or an operable outlet valve 22 during an evacuation stroke, and in which the compressor has a controllable inlet valve 24 that is pneumatically, hydraulically or electromagnetically operable and that is opened and closed upon basis of a signal from a control system 70, characterized in that the inlet valve is kept closed during at least a part of an intake stroke (col. 19 ll. 50-61); (claim 2) the step wherein an inlet valve 20 is kept closed during the whole intake stroke (col. 10 ll. 26-29); (claims 3 and 12) the step wherein the frequency of cycles with closed intake stroke is varied between 0% and 100% of the number of revolutions per minute in order to, at the given number of revolutions per

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minute, deliver the amount of the compressed gas required for the moment (col. 19 ll. 26-36); (claims 4 and 13) the step wherein between each cycle or each continuous series of cycles with closed intake strokes, an equal amount of revolutions are performed (col. 19 ll. 26-29); (claim 5) the step wherein an inlet valve 20 is closed upon transition, or after the transition, from intake stroke to evacuation stroke (col. 23 ll. 41-45); (claim 6) the step characterized by an the inlet of the compressor besides the controllable inlet valve 20 comprising a non return valve 28 for inflow, and the step of a conduit 58 for supply of gas to the non return valve 28 being throttled down or closed by means of a closure member 64 arranged by or upstream of a non return valve 28, by controlling the gas pressure in a tank 60 associated to the compressor 10; (claim 7) the step characterized by a closure member being a controllable valve 64 which is opened and closed upon basis of a signal from the control system 70 (col. 8 ll. 66-67; col. 9 ll. 1-6); (claim 8) the step of an outlet of the compressor, apart from a non return valve for outflow, and comprising a controllable outlet valve 22 which is pneumatically, hydraulically or electro-magnetically operated, opening and closing upon basis of a signal from the control system 70; (claim 9) the step wherein an outlet valve 22 is opened as a pressure balance occurs between the gas to be evacuated and the gas on the opposite side of the outlet valve 22, wherein a means of a sensor, elements 78 and 80, that registers the cylinder pressure that is compared to the pressure in the tank 56 registered by another sensor 72 controls the pressure balance on the opposite side of the outlet valve 22; (claim 10) the step of a conduit, elements 40, 50 and 54, that extends between the compressor 10 and the tank 56 fulfilling the need of pressurized gas between the compressor 10 and the equipment that will use the pressurized gas (col. 9 ll. 55-67); (claim 11) the step of a computer program being adapted for and executing a control method (col.. 10 ll. 56-64); (claim 14) and a control method for

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controlling gas flow by a compressor including the steps of expanding the volume of an introduced gas during an intake stroke; compressing the introduced volume of gas and evacuation the same amount of gas introduced through at least one of a non-return valve 20, for outflow and an operable outlet 22 during an evacuation stroke, as an exhaust valve element 22 expels the products of combustion (col. 23 ll. 41-46) during an evacuation stroke of piston element 14, pneumatically, hydraulically or electromagnetically operable and that is opened and closed upon basis of a signal from a control system 70, characterized in that the inlet valve is kept closed during at least a part of an intake stroke (col. 19 ll. 50-61).

Response to Arguments

4. Applicant's arguments filed August 20, 2007 have been fully considered but they are not persuasive.

5. With respect to rejection of the instant application under 35 U.S.C. 102(b) as being anticipated by Schechter 6,223,846 the applicant argues that the Schechter reference does not teach or suggest a method where "generally all the gas that is introduced into the compression chamber during an intake stroke is evacuated during the subsequent evacuation stroke." In response to applicant's argument the examiner notes that in any compressor, such as a piston compressor, inherently some volume of fluid or gas introduced into a compression chamber will be not be evacuated. The applicant argues in the case of the instant application "generally all the gas" introduced is evacuated, thus admitting that a portion however miniscule of a volume of gas introduced into a chamber remains in the chamber after a compression stroke wherein the chamber is evacuated. However Schechter does teach an exhaust valve element 22 expelling the products of combustion (col. 23 ll. 41-46), and thus "generally all the gas" introduced into a chamber 16 is evacuated during an evacuation stroke of piston element 14.

It is further noted that features upon which applicant relies (i.e., a volume which is expanded and the volume which is compressed is the same) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). The specification does, in part, offer support to this argument on page 4 lines 7-10, however the applicant suggests only that an expanded volume is substantially compressed (emphasis added). The applicant does not explicitly state that the entire volume is evacuated. Schechter teaches that the "fraction of initial air charge" remaining in a chamber expands after air is displaced from a cylinder. This implies that even the fraction of air that remains was at one time compressed and therefore Schechter teaches that which is disclosed, but not claimed (emphasis added), a volume introduced into a chamber and "which is expanded substantially being compressed." It is further noted that the applicant discloses subject matter which applicant argues that the Schechter reference teaches, and thus differentiates the prior art from the instant application. Specifically the applicant discloses "There are also, for example, rotating displacement compressors where the volume that is expanded is not the same as the volume that is compressed." Therefore the applicant discloses a compressor that does not fully compress and expanded volume and therefore teaches away from that which applicant argues. One of ordinary skill in the art would not be able to ascertain that a compressor, as claimed in claim 1, was one in which a "the volume which is expanded and the volume which is compressed is the same" or one in which the "volume that is expanded is not the same as the volume that is compressed." However neither condition renders a compressor to exclusively evacuate "generally all the gas" introduced as argued by the applicant.

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

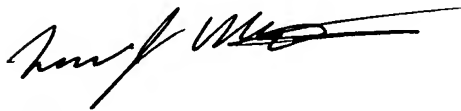
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leonard J. Weinstein whose telephone number is (571) 272-9961. The examiner can normally be reached on Monday - Thursday 7:00 - 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Devon Karmer can be reached on (571) 272-7118. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

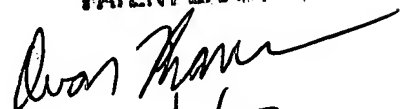
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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



LJW

DEVON C. KRAMER
PATENT EXAMINER


11/7/07